

Quiz 5

Math 1060-5

Friday, October 19, 2012

Name: _____

Directions: Show all work for full credit. Clearly indicate all answers. Simplify all mathematical expressions completely. No calculators are allowed.

1. Simplify the following expression: (15 points)

$$\sec \alpha \cdot \frac{\sin \alpha}{\tan \alpha}$$

2. Verify the following identity: (15 points)

$$\frac{\cos \theta \cot \theta}{1 - \sin \theta} - 1 = \csc \theta$$

3. Give all solutions to each of the following equations: (10 points each)

(a) $3 \sec^2 x - 4 = 0$

(b) $\sin x(\sin x + 1) = 0$